

FIG.2A

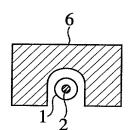


FIG.2B

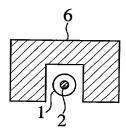


FIG.2C

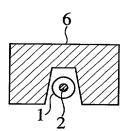


FIG.2D

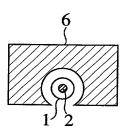


FIG.2E

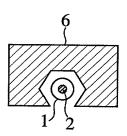


FIG.3A

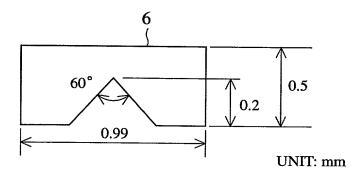


FIG.3B

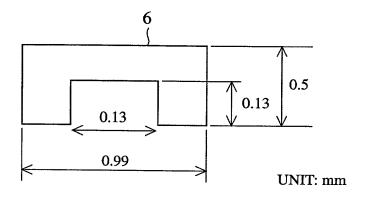


FIG.4

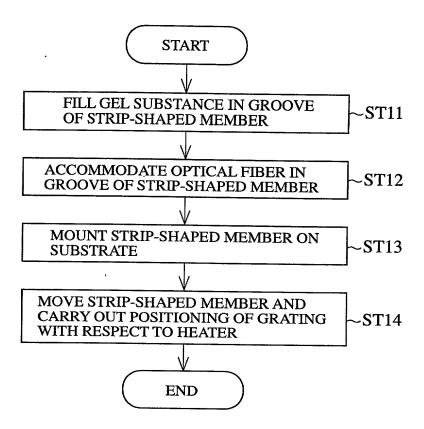
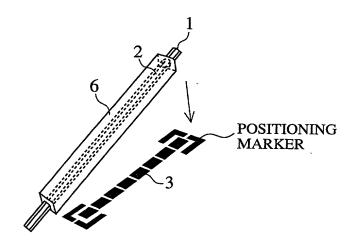


FIG.5



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FILLERS	TYPES	CURING CONDITIONS	HARDNESS	FEATURES
SILICON	ADHESIVE	150°C 1 HOUR	JIS A 28	SOFT, HEAT-RESISTANCE, HIGH-ADHESIVENESS
	PASTE	NORMAL TEMPERATURE NON-CURING	I	FILLER UNRELIABLE AS SOLVENT IS VOLATILE AFTER COATING
	GEL SUBSTANCE	150°C 1 HOUR	PENETRATION 85	CONTACT-TYPE SUPER SOFT, HEAT-RESISTANCE
EPOXY	ULTRAVIOLET CURING-TYPE ADHESIVE (CONTAINING FILLER)	ULTRAVIOLET IRRADIATION FOR 1 MINUTE	JIS D 90	SHORT CURING TIME STABILIZE MEMBERS WITH FILLER TG 160°C OR MORE, SMALL CURING SHRINKAGE
	ULTRAVIOLET CURING-TYPE ADHESIVE (NOT CONTAINING FILLER)	ULTRAVIOLET IRRADIATION FOR 1 MINUTE	JIS D 90	SHORT CURING TIME TG 160°C OR MORE, SMALL CURING SHRINKAGE
	TWO-PART HEAT CURING-TYPE ADHESIVE	70°C 1 HOUR		LOW HEAT-RESISTANCE

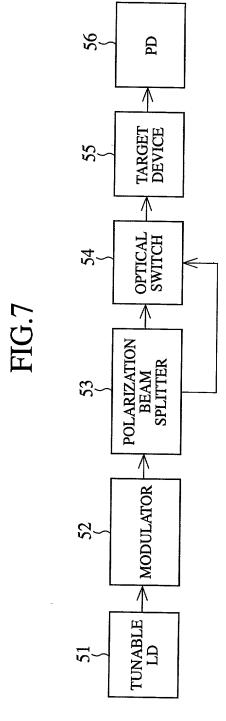


FIG.8

PMD MEASUREMENT CONDITIONS				
WAVE RANGE	1548nm ~1550nm			
MODULATION FREQUENCY	500MHz			
DISPERSION AMOUNT OF GRATING	-250ps/nm			
PMD MEAN VALUE	PMD MEAN VALUE WITHIN TRANSMISSION BAND			

FILLER			
FILLERS	TYPES	PMD(ps) MEAN VALUE	
		BEFORE CURING	AFTER CURING
SILICON	ADHESIVE	1.7	3.7
	PASTE	1.2	5.3
	GEL SUBSTANCE	1.2	1.2
EPOXY	ULTRAVIOLET CURING-TYPE ADHESIVE (CONTAINING FILLER)	2.8	5.1
	ULTRAVIOLET CURING-TYPE ADHESIVE (NOT CONTAINING FILLER)	5.3	2.8
	TWO-PART HEAT CURING-TYPE ADHESIVE	4.8	0.9

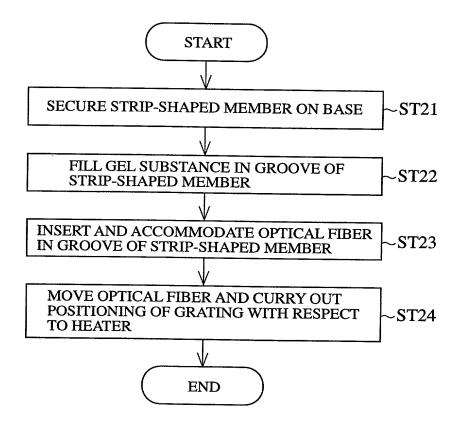
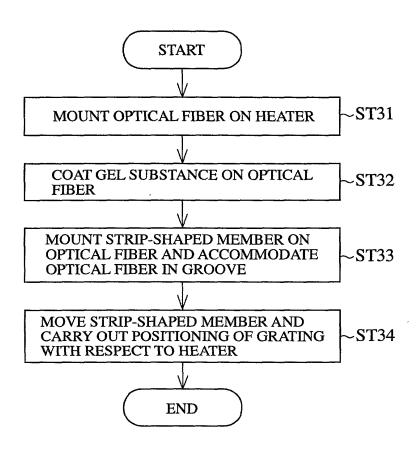
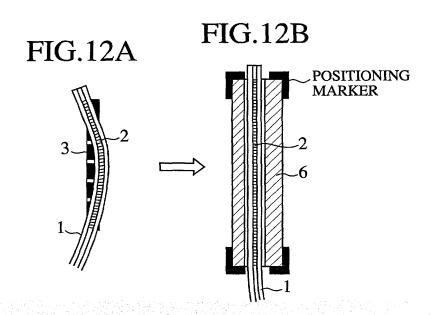


FIG.11





OPTICAL FIBER HOLDING DEVICE PELTIER ELEMENT CONTROL CIRCUIT HEATER CONTROL CIRCUIT

FIG.14 (PRIOR ART)

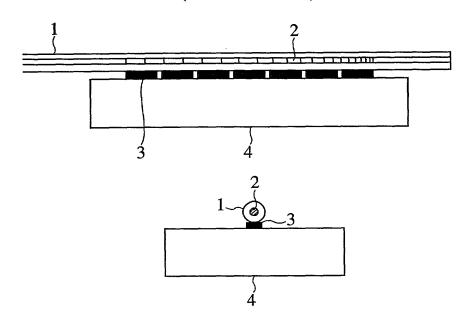
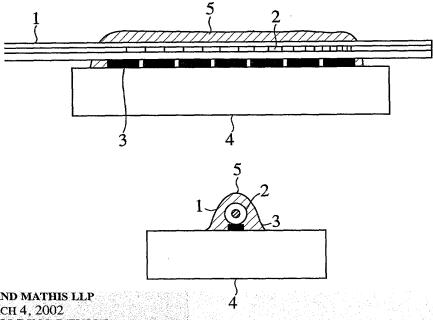


FIG.15 (PRIOR ART)



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11 SHEETS